P.O. BOX 1029 • GRAND JUNCTION, COLORADO 81502 7 (303) 245-3700

March 27,1987

Mr. Steve McNeal Division of Environmental Health Utah Department of Health 150 West North Temple Salt Lake City, Utah 84110

RE: Hecla Treatment Plant and Silverbell Mine Discharge Analyses

Dear Mr. McNeal:

We have received the analyses for the last water samples for the above named facilities. The results are as follows:

	Hecla Treatment Plant	Silverbell Mine Discharge
pH (Field)	6.5	6.5
Ra226, pCi/L (R)	10 <u>+</u> 2	19 <u>+</u> 3
Nat. Uranium, pCi/L (R)	22 <b>T</b>	1420
TDS, mg/L	512	1290
TSS, mg/L	4	70

The information on the performance of the treatment plant has been forwarded to Dow Chemical U.S.A., the manufacturer of the radium selective complexer XFS-43230.00. They state that the problem is inadequate filtration of the mine discharge water. An evaluation of the performance data shows that there may be other factors that cause the poor performance. Water samples and resin samples have been taken by our laboratory personnel from the White Mesa Mill and they will try to investigate the cause of the disappointing performance.

A new evaporation pond has been designed for the Silverbell Mine discharge water. The additional requested clay samples have not been taken yet, because of the snow and the frozen ground in the area.

Yours truly,

Viels B. Haubold Niels B. Haubold Manager of Mines

NBH/jac

xc: Dave Ariotti, Southeast District Engineer

R. F. Barnett J. L. Hasty R. K. Jones